

REMARKS

The Examiner objected to the specification. With the present paper, a new abstract is being submitted. Thus, it is requested that the Examiner withdraw the objection.

The Examiner rejected claims 4 and 16 – 18 under 35 U.S.C. §112. Claim 2 has been amended to clarify that the information is for “access” control. Support for this amendment can be found at page 35 line 6.

Claim 4 depends to claim 2 and has been amended so that this claim is consistent with the amendment of claim 2. Specifically, it clarifies that the information for access control includes a watermark.

Claims 16 and 17 have been amended to recite that the running program code is suspended when the execution point is reached so as to clarify that “resuming” means continuation of the program code from the execution point. Claim 18 has been amended to clarify that the representation has been suspended, and thus “resumes.”

It is therefore respectfully requested that the Examiner withdraw the rejections under 35 U.S.C. §112.

The Examiner has rejected claims 1, 10, 11, 13, 14, 16, and 18 under 35 U.S.C. §101. Claim 1 has been amended to recite storage on a computer readable medium. It is believed these rejections are now moot.

In the Official Action, claims 1 – 5, 8 – 24 and 27 – 33 have been rejected as being obvious in view of the combination of U.S. 5,745,569

(Moskowitz et al.) and U.S. 6,226,618 (Downs et al.). Claims 6 and 25 have been rejected as being obvious in view of Moskowitz et al. and Downs et al. and further in view of U.S. 6,006,332 (Rabne), whereas claims 7 and 26 have been rejected in view of Moskowitz et al. and Downs et al. in further view of U.S. 4,654,792 (Thomas). Applicants respectfully traverse.

As the Examiner would appreciate, the claims generally relate to the processing of digital material so that use of the material can be restricted to authorized users to prevent counterfeiting. Conventionally, access control information is embedded in either the program code or the data of the digital material. Both methods have problems, as explained at page 2 lines 2 to 8 of the present application.

The claims recite an improvement to the above by hiding customization data within a combined representation of program code, data and execution state of the program. This means that the combined representation, including execution state, is customized by the customization information resulting in the customization information being embedded within the execution state. This makes it difficult to modify the customization data to make unauthorized use of the digital material, as explained at page 32 lines 1 to 3.

Claims 1 and 19 have been amended to clarify that the customization information is embedded within the execution state of the

representation. The amendments to the claims add no prohibited new matter. Support for the amendments can be found, *inter alia*, at page 32 line 1 and page 34 lines 4 and 5.

Moskowitz et al. disclose a method for protecting computer code copyrights by encoding the code into a data resource with a digital watermark. The Examiner asserted that this document discloses all the features of claim 1, except that it does not disclose customization information being provided during running of the program code. As identified by the Examiner, column 4 lines 56 to 59, of Moskowitz et al. involve hiding necessary parts or code resources in digitized sample resources using a digital watermarking process. It appears that the Examiner is reading the code resources of Moskowitz et al. to be program code and the digitized sample resources to be the data. Further, as explained in the Abstract, licensing information (e.g., the customization information) is interwoven with essential code resources encoded into data resources (data). Thus, the customization information in Moskowitz et al., together with the program code, is embedded in the data of the computer software (see, for example, claim 1 of Moskowitz et al.).

In contrast, amended claim 1 clarifies that the customization information of the present invention is embedded in the execution state of the representation. Such a configuration makes it very difficult for potential hackers to access the customization information, as explained at page 32.

Therefore, in view of the above and the Examiner's remarks, claims 1 and 19 are submitted to be patentably distinguishable from Moskowitz et al.

Down et al. relates to an electronic content delivery system for secure delivery and rights management of digital assets (column 1, lines 54 to 56). At column 7 lines 41 to 45, this document discloses that a digital code is embedded in every copy of the Content that defines the allowable number of secondary copies and playbacks. It appears that the Examiner is reading the digital code as customization information. As is clear, the digital code is embedded in the Content, which is not run. The running of the Application only takes place at the End-User Device (see column 7, lines 41 and 42) and thus there is no way that the digital code can be embedded within the execution state of the Content. In other words, at column 7, lines 14 to 16, as referred to by the Examiner, the customization information being provided during running of the Application is merely to obtain the licensing authorization (from the Clearing House) to unlock the digital code embedded in the Content (see also column 24, lines 5 to 9 and lines 48 to 52).

In contrast, unlike Down et al., claim 1 and 19 provide customization information during the running of the program code so that the customization information can be embedded within the execution state of the program code (i.e., the representation), as is clear from amended

claims 1 and 19. Therefore, amended claims 1 and 19 are believed to be patentable over Down et al.

Even if there is a motivation to combine the teachings of both documents, which the applicants do not believe to be the case, claims 1 and 19 are also not obvious over such a combination. As the Examiner has asserted, a skilled artisan would be motivated to implement the authentication of licensing information using a third party Clearing House proposed in Down et al. to protect computer code copyright so that usage of the computer code on the end user device can be tracked. Following the Examiner's reasoning, a skilled artisan would thus incorporate such security in the customization information that would be embedded in the non-executable digital data. Consequently, the skilled artisan would not contemplate, without impermissible hindsight, modifying the prior art teachings such that the licensing information or digital code can be embedded within the execution state of the computer software to be distributed because neither document suggests any such possibility or provides any advantage that would motivate a skilled artisan to do so. Thus, applicants submit that amended claims 1 and 19 are not obvious in view of Moswowitz et al. and Down et al., alone or in any proper combination.

With respect to the other two cited documents, U.S. 6,006,332 (Rabne et al.) relates to rights management system for digital media

whereas U.S. 4,654,792 (Thomas) relates to a data processing system with verification and authentication capabilities. Neither document is concerned with customization of digital material to prevent counterfeiting. More importantly, neither document discloses providing the customization information during the running of the program code so that the customization information is embedded within the execution state. Thus, neither document is any more relevant than Moskowitz et al. or Down et. al.

Consequently, it is respectfully requested that the Examiner withdraw the rejections of claims 1 and 19, and provide an indication of their allowability.

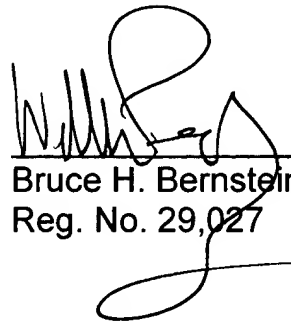
Dependent claims 2 – 18 and 20 - 33 are also believed to recite further patentable subject matter of the invention and therefore are also believed allowable over the prior art. As such, allowance of the dependent claims is deemed proper for at least the same reasons noted for the independent claims, in addition to reasons related to their own recitations. Accordingly, applicants respectfully request reconsideration of the outstanding rejections and an indication of the allowability of all of the claims in the present application.

The above amendments have been presented merely for the purpose of clarification, and not to overcome the applied prior art.

Accordingly, no estoppel is deemed to result from any of the present amendments.

Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully Submitted,  
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